

• WHAT IS CLAIMED IS:

1. An apparatus comprising:

a plurality of libraries of software modules maintained at a plurality of test locations, respectively, of a network; and

a graphical end user interface (GUI) via which an end user constructs a graphical model for a test of the network, the graphical model including flows respectively corresponding to test locations, a respective flow for a corresponding test location being a flow of software modules from the library maintained at the corresponding test location.

2. An apparatus as in claim 1, wherein the GUI is run at a location remote from at least one test location, so that the end user constructs the graphical model and runs the test from the remote location.

3. An apparatus comprising:

a library of software modules; and

a graphical end user interface (GUI) via which an end user constructs a graphical model for a multi-location test of a network, the graphical model including flows respectively corresponding to test locations, a respective flow for a corresponding test location being a flow of software modules from the library.

4. The apparatus according to claim 3, wherein:

the GUI is run at a location remote from at least one test location, so that the end user constructs the graphical model and runs the test from the remote location.

5. The apparatus according to claim 3, wherein:

each flow sequentially runs the software modules contained therein.

6. The apparatus according to claim 3, wherein the software modules comprise:

test modules that perform predefined test operations; and

coordination modules to coordinate inter-operation of test modules in different flows.

7. The apparatus according to claim 6, wherein coordination modules are employed in a pair, comprising:

a first member of the pair employed in a first flow to send a coordination message to a second flow; and

a second member of the pair employed in the second flow to receive the coordination message from the first member.

8. The apparatus according to claim 7, wherein:

the coordination message also contains test generated data.

9. The apparatus according to claim 8, wherein:

the test generated data is formatted in a predefined format.

10. The apparatus according to claim 8, wherein:

each test location has an associated information holding environment, in which the test generated data is stored.

11. The apparatus according to claim 3, further comprising:

a conversion unit to generate the flows from the graphical model.

12. The apparatus according to claim 11, wherein the conversion unit comprises:

a converter to convert the graphical model into text; and

a parser to generate the flows from the text.

13. The apparatus according to claim 12, wherein:

the parser interacts with the library to generate the flows

14. The apparatus according to claim 12, wherein:

a language used by the converter to convert the graphical model into text is XML.

15. The apparatus according to claim 3, wherein:

the library is centrally located.

16. The apparatus according to claim 3, wherein:

a copy of the library is distributed to each test location.

17. An apparatus comprising:

a library of software modules, including test modules and coordination modules; and
a graphical end user interface (GUI) via which an end user constructs a graphical model for a multi-location test of a network, the graphical model including flows respectively corresponding to test locations, a respective flow for a corresponding test location being a flow of at least one software module,

wherein test modules perform predefined test operations and coordination modules coordinate inter-operation of test modules in different flows.

18. An apparatus comprising:

a library of software modules;

a graphical end user interface via which an end user designs a graphical model of multi-location test software, in which a subtest of at least one software module is constructed for each test location.

19. An apparatus comprising:

a library of software modules, including test modules, and coordination modules;

a graphical end user interface to design a graphical model of software to test multiple test locations of a network, in which

a flow of at least one software module is constructed for each test location, and coordination modules coordinate inter-operation of test modules in different flows and communicate test generated data with the different flows;

a conversion unit to generate the flows from the graphical model;

at least one agent to run the flows;

at least one probe deployed at each test location to collect data from at least one attribute of the network and communicate the data with the at least one agent; and

a central controller to control running of the flows and collect the data from the at least one agent.

20. A computer readable medium, comprising:

a first set of instructions housing a library of software modules, including test modules and coordination modules;

a second set of instructions creating a graphical user interface (GUI) via which an end user constructs a graphical model for a multi-location test of a network, the graphical model including flows respectively corresponding to test locations, a respective flow for a corresponding test location being a flow of at least one software module;

a third set of instructions to convert the graphical model to a text representation of the multi-location test;

a fourth set of instructions controlling an agent to receive and analyze the text representation, access the library, and run the flows for each test location; and

a fifth set of instructions coordinating synchronization and exchange of test generated data between flows.